

## REMARKS

Claims 73-84 have been canceled without prejudice or disclaimer. Claims 85-89 have been added. Therefore, claims 62-72 and 85-89 are pending in the present application and at issue. Claim 62 has been amended to specify that the carbohydrate oxidase is active towards at least one monosaccharide and at least one of disaccharides and oligosaccharides, as supported by, e.g., page 12, lines 29-31 of the specification.

It is respectfully submitted that the present amendment presents no new issues or new matter and places this case in condition for allowance. Reconsideration of the application in view of the above amendments and the following remarks is requested.

### **I. The Rejection of Claims 62-67, 70-78, 83 and 84 under 35 U.S.C. 103**

Claims 62-67, 70-78, 83 and 84 are rejected under 35 U.S.C. 103 as being unpatentable over Baeck et al. (U.S. Patent No. 6,077,818) in view of Sando et al. (U.S. Patent No. 3,481,684). This rejection is respectfully traversed.

Baeck et al. disclose a detergent composition comprising a cellulase and a cellulase termination composition, wherein the cellulase terminator composition comprises a peroxidase, an enhancer and a source of hydrogen peroxide. Baeck et al. further disclose that the source of hydrogen peroxide may be a hydrogen peroxide-generating enzyme such as an oxidase selected from the group consisting of glucose oxidase, urate oxidase, galactose oxidase, alcohol oxidase, amine oxidase, amino acid oxidase, amyloglucosidase and cholesterol oxidase (see column 8, lines 55-65).. In addition, Baeck et al. disclose that the detergent composition may further comprise a lipoxygenase.

However, Baeck et al. do not teach or suggest a process for manufacturing a textile, comprising scouring a fabric, fiber, or yarn; and bleaching the fabric, fiber, or yarn in an aqueous medium comprising peroxide generated using a carbohydrate oxidase, wherein the carbohydrate oxidase is active towards at least one monosaccharide and at least one of disaccharides and oligosaccharides. Significantly, the oxidases disclosed in Baeck et al. do not have activity against a monosaccharide and at least one of disaccharides and oligosaccharides.

Moreover, because the process of the present invention uses a carbohydrate oxidase which is active against a monosaccharide and at least one of disaccharides and oligosaccharides, the bleaching process is more efficient. For example, the carbohydrate oxidase can use a monosaccharide and a disaccharide and/or oligosaccharide produced *in situ* in the desizing and/or scouring steps in the bleaching process. Thus, it is not necessary to add a substrate for the

carbohydrate oxidase. These results are not predicted by the prior art, and therefore are surprising and unexpected.

Sando et al. merely disclose that “it is conventional to scour, bleach and then alkaline treat cotton and cellulosic fabrics.” However, Sando et al. also do not teach or suggest a process for manufacturing a textile using a carbohydrate oxidase, wherein the carbohydrate oxidase is active towards at least one monosaccharide and at least one of disaccharides and oligosaccharides.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 103. Applicants respectfully request reconsideration and withdrawal of the rejection.

## **II. The Rejection of Claims 68 and 69 under 35 U.S.C. 103**

Claims 68 and 69 are rejected under 35 U.S.C. 103 as being unpatentable over Baeck et al. (U.S. Patent No. 6,077,818) in view of Sando et al. (U.S. Patent No. 3,481,684) and further in view of Schneider et al. (U.S. Patent No. 6,165,761). This rejection is respectfully traversed.

As discussed above, Baeck et al. and Sando et al. do not teach or suggest a process for manufacturing a textile using a carbohydrate oxidase, wherein the carbohydrate oxidase is active towards at least one monosaccharide and at least one of disaccharides and oligosaccharides.

Schneider et al. disclose a carbohydrate oxidase obtained from *Microdochium* and its use baking. However, Schneider et al. also do not teach or suggest a process for manufacturing a textile using a carbohydrate oxidase, wherein the carbohydrate oxidase is active towards at least one monosaccharide and at least one of disaccharides and oligosaccharides.

Moreover, as discussed above, because the process of the present invention uses a carbohydrate oxidase which is active against a monosaccharide and at least one of disaccharides and oligosaccharides, the bleaching process is more efficient. For example, the carbohydrate oxidase can use a monosaccharide and a disaccharide and/or oligosaccharide produced *in situ* in the desizing and/or scouring steps in the bleaching process. Thus, it is not necessary to add a substrate for the carbohydrate oxidase. These results are not predicted by the prior art, and therefore are surprising and unexpected.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 103. Applicants respectfully request reconsideration and withdrawal of the rejection.

## **III. The Rejection of Claim 79 under 35 U.S.C. 103**

Claim 79 is rejected under 35 U.S.C. 103 as being unpatentable over Baeck et al. (U.S. Patent No. 6,077,818) in view of Sando et al. (U.S. Patent No. 3,481,684) and further in view of

Sugio et al. (CA 2444735). Claim 79 has been canceled without prejudice or disclaimer. Therefore, this rejection is rendered moot.

#### **IV. The Rejection of Claims 80 and 82 under 35 U.S.C. 103**

Claims 80 and 82 are rejected under 35 U.S.C. 103 as being unpatentable over Baeck et al. (U.S. Patent No. 6,077,818) in view of Sando et al. (U.S. Patent No. 3,481,684) and further in view of Hage et al. (US 2003/0166485). Claims 80 and 82 have been canceled without prejudice or disclaimer. Therefore, this rejection is rendered moot.

#### **V. Conclusion**

In view of the above, it is respectfully submitted that all claims are in condition for allowance. Early action to that end is respectfully requested. The Examiner is hereby invited to contact the undersigned by telephone if there are any questions concerning this amendment or application.

All required fees were charged to Novozymes North America, Inc.'s Deposit Account No. 50-1701 at the time of electronic filing. The USPTO is authorized to charge this Deposit Account should any additional fees be due.

Respectfully submitted,

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